UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,011	07/03/2001	Min Soo Park	2060-3-08	2186

35884	7590	09/23/2005

LEE, HONG, DEGERMAN, KANG & SCHMADEKA, P.C.
801 SOUTH FIQUEROA STREET
14TH FLOOR
LOS ANGELES, CA 90017

EXAMINER
MOORE, IAN N

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/899,011	PARK, MIN SOO
		Examiner	Art Unit
		Ian N Moore	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 03 July 2001.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-21 is/are pending in the application.

　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1,4-7,9,10 and 13-20 is/are rejected.

7) ☒ Claim(s) 2,3,8,11,12 and 21 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a) ☒ All　b) ☐ Some *　c) ☐ None of:

　　1. ☒ Certified copies of the priority documents have been received.

　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 1 is objected to because of the following informalities: claim 1 recites, "**an**

internet network" in line 11. For clarity, it is suggested to change to "the internet network" in

line 11 since "a internet network" is already recited in line 5. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Minko (U.S.

5,963,551).

   Regarding Claim 1, Minko discloses an internet telephone communication system

(see FIG. 1 a-b; see col. 4, lines 30-40; see col. 2, lines 9-20; digital voice communication

across Internet) comprising:

   teaches a voice receiving part (see FIG. 1 a-b; local/remote receiver 20 A-B)

receiving a first set of voice data packets (see FIG. 1a, audio packets) through an Internet

network (see FIG. 1a, across the Internet; see col. 2, lines 10-20) and sending a

retransmission frequency information packet requesting (see FIG. 4, step 400; a recovery

information) to retransmit a same set of voice data packets R times, R being a retransmission

frequency (see FIG. 4, step 405, 415, 420 and 425; retransmission for the lost packets for a

number of time(s) (i.e. R time); see col. 9, lines 1-25), and being determined based on a data

loss rate of said first set of voice data packets received (see FIG. 3, step

300,305,310,315,325,330,335,340; retransmission in accordance with packet lost rate/count

of missing/lost packets; see col. 7, lines 20-50; 59 to col. 8, lines 45) and

    a voice transmitting part (see FIG. 1 a-b; local/remote sender 20 A-B) retransmitting

said same set of voice data packets for a number time(s) (i.e. R times) through an internet

network (see FIG. 4, steps 415,420,425; retransmission for the lost packets for a number of

time(s); see col. 9, lines 1-25) according to said retransmission frequency information packet

received (see FIG. 4, step 345, 400, and 405; see col. 8, lines 25 to col. 9, lines 20).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 4, 9, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Minko in view of Fukushima (U.S. 6,587,985).

    Regarding Claim 4, Minko discloses a voice packet as described above in claim 1.

Minko does not explicitly disclose a RTP protocol header region containing a corresponding

packet sequence number and at least one data region. However, a RTP protocol header region

containing a corresponding packet sequence number and at least one data region is well

known in the art of RFC standard (i.e. RFC 1889). In particular, Fukushima teaches a RTP

protocol header region (see FIG. 34a, RTP header section Ph) containing a corresponding

packet sequence number (see FIG. 34 b, sequence number) and at least one data region (see

FIG. 34 a, data section Pd); see col. 46, lines 14-45. Therefore, it would have been obvious to

one having ordinary skill in the art at the time the invention was made to utilize well known

RTP protocol, as taught by Fukushima in the system of Minko, so that it would improve the

transmission quality in real-time transmission; see Fukushima col. 2, line 9-65.

Regarding Claim 9, Minko discloses wherein said voice receiving part comprising a

data loss determiner for determining whether said only set of data left is damaged and

calculating a corresponding data loss rate (see FIG. 3, steps 305,310.315,325,330,335,340);

a retransmission frequency determiner for determining a retransmission frequency

based on said data loss rate and sending a retransmission frequency information packet

containing said frequency to said transmitting part (see FIG. 4) and as described above in

claim 1.

Minko does not explicitly disclose a data eliminator for leaving only one set of data

among sets of compressed voice data that are repeatedly received and deleting all other data.

However, Fukushima discloses a data eliminator (see FIG. 4, Retransmission buffer 17 and

buffer management unit 18; see FIG. 10) for leaving only one set of data among sets of

compressed voice data that are repeatedly received and deleting all other data (see col. 16,

lines 30-60; col. 21, lines 30 to col. 22, lines 30; see col. 15, lines 10 to col. 16, lines 9;

a data loss determiner (see FIG. 5, error packet detection unit 22; also see FIG. 11),

for determining whether said only set of data left is damaged and calculating a corresponding

data loss rate (see col. 22, lines 35-50; see col. 18, lines 6-25; see col. 15, lines 10 to col. 16, lines 9); and

a retransmission frequency determiner (see FIG. 5, packet priority decision unit 25, reception history management unit 24 and retransmission instruction output unit 26; also see FIG. 11) for determining a retransmission frequency based on said data loss rate and sending a retransmission frequency information packet containing said frequency to said transmitting part (see col. 22, lines 34-50; see col. 18, lines 6-25; see col. 15, lines 10 to col. 16, lines 9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to a data eliminator, as taught by Fukushima in the system of Minko, so that it would improve the transmission quality in real-time transmission by discarding the packet; see Fukushima col. 2, line 9-65; see col. 16, lines 40-60.

Regarding Claim 10, Minko discloses determining a retransmission frequency by comparing said data lost rate with first (see FIG. 3, step 340, 345 and 365, threshold; see FIG. 4, step 345) and second allowed data loss values (see FIG. 3, step 340, 345 and 365, threshold; see FIG. 4, step 345; see col. 8, lines 25, lines 62) set by a user (see col. 8, lines 20-26; adjustable by user).

Regarding Claim 13, Minko discloses wherein said data eliminator as described above in claim 9. Fukushima discloses wherein said data eliminator deletes other voice data received using formation time information attached to said voice data (see col. 16, lines 30-60; col. 21, lines 30 to col. 22, lines 30; see col. 15, lines 10 to col. 16, lines 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to a data eliminator, as taught by Fukushima in the system of Minko, so that it would

improve the transmission quality in real-time transmission by discarding the packet; see

Fukushima col. 2, line 9-65; see col. 16, lines 40-60.

6.   Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minko in view

of Hamiti (U.S. 6,751,209).

      Regarding Claim 5, Minko discloses retransmission frequency information packet

and voice/audio/phone connection/call as described above in claim 1. Minko does not

explicitly disclose a retransmission frequency information packet includes an IP header

region, a UDP header region, a service identifier region being indicative of said

retransmission frequency information packet, a session ID number region being newly

assigned for each telephone call, and a retransmission frequency region. However, a

retransmission frequency information packet includes an IP header region, a UDP header

region, a service identifier region being indicative of said retransmission frequency

information packet, a session ID number region being newly assigned for each telephone

call, and a retransmission frequency region is well known in the art of RTP, UDP and IP. In

particular, Hamiti discloses a retransmission frequency information packet (see FIG. 3)

includes an IP header region (see FIG. 3, IP header), a UDP header region (see FIG. 3, UDP

header), a service identifier region being indicative of said retransmission frequency

information packet (see FIG. 3, payload type 315 and CSRC count 313), a session ID number

region (see FIG. 3, time stamp 317 and ID 335) being newly assigned for each telephone call,

and a retransmission frequency region (see FIG. 3; see col. 5, lines 1 to col. 6, lines 15; 43-

52.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize well known standard RTP, UDP and IP protocol, as taught by Hamiti in the system of Minko, so that it would improve the transmission quality in real-time transmission per standards and lost packet can recover on time which increase the throughput; see Hamiti col. 2, line 1-65.

Regarding Claim 6, Neither Minko nor Hamiti explicitly discloses 4 bytes, 3 bytes, and 1 byte. Minko teaches internet communication system sending audio/voice over Internet retransmitting packet with header in order to recover the lost packet. Hamiti teaches said service identifier region, said session ID number region, and said retransmission frequency region have sizes of byte, bytes, or bits. Setting the size of region to 4,3, and 1 byte do not define a patentable distinct invention over that in the combined system of Minko and Hamiti since both the invention as a whole and the combined system of Minko and Hamiti are directed to having the headers with the size of region for retransmission lost packet so as to maintain the voice quality. The degree in which setting the size of region to 4,3, and 1 byte presents no new or unexpected results, so long as the voice quality is maintained, the voice traffic is processed in a successful way. Therefore, to have setting the size of region to 4,3, and 1 byte for retransmission would have been routine experimentation and optimization in the absence of criticality.

Regarding Claim 7, Neither Minko nor Hamiti explicitly discloses 1,2,3,4 represented as 0000 0001, 0000 0010, 0000 0100, and 0000 1000. Minko teaches retransmission frequency for retransmitting packets in order to recover the lost packets. It is well known in the art, 0000 0001, 0000 0010, 0000 0100, and 0000 1000 represent 1,2,3,4 in

binary. Setting the retransmission times/frequency to 1,2,3,4 do not define a patentable

distinct invention over that in the combined system of Minko and Hamiti since both the

invention as a whole and the combined system of Minko and Hamiti are directed to having

retransmission lost packet so as to maintain the voice quality. The degree in which setting the

retransmission times/frequency to 1,2,3,4 presents no new or unexpected results, so long as

the voice quality is maintained, the voice traffic is processed in a successful way. Therefore,

to have setting the retransmission times/frequency to 1,2,3,4 would have been routine

experimentation and optimization in the absence of criticality.

7.   Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minko in

view of Nguyen (U.S. 5,5442,637).

Regarding Claim 14, Minko discloses a method of operating an internet telephone

communication system (see col. 4, lines 30-40; see col. 2, lines 9-20; digital voice

communication across Internet) having a voice transmitting part (see FIG. 1 a-b; local/remote

sender 20 A-B) and a voice receiving part (see FIG. 1 a-b; local/remote receiver 20 A-B), the

method comprising the steps of:

calculating a data loss rate of voice data packets received during a given time interval

by said voice receiving part (see FIG. 3, steps 300,305,310,315,325,330,335,340;

determining the audio packet lost rate/count during a time interval; see col. 7, lines 20-50; 59

to col. 8, lines 45);

updating a retransmission frequency if said data lost rate is grater than a maximum

allowed value (see FIG. 3, step 340, 345 and 365, threshed; see FIG. 4, step 345) and if said

data lost rate is less than a minimum allowed value (see FIG. 3, step 340, 345 and 365,

threshed; see FIG. 4, step 345; see col. 8, lines 25, lines 62); set by user (see col. 8, lines 20-

26; adjustable by user);

transmitting a retransmission frequency information packet (see FIG. 4, step 400; a

recovery information) to said voice transmitting part, said information packet containing said

updated frequency (see FIG. 4, step 405, 415, 420 and 425; retransmission for the lost

packets for a number of time(s) (i.e. R times); see col. 9, lines 1-25); and

transmitting each voice data packet from said voice transmitting part to said voice

receiving part R times, R being said updated frequency (see FIG. 4, steps 415,420,425;

retransmission for the lost packets for a number of time(s); see col. 9, lines 1-25).

Minko does not explicitly disclose updating a retransmission frequency by increasing

said frequency by one and decreasing said frequency by one, said maximum and minimum

allowed values being set by a user.

However, updating a retransmission frequency by increasing said frequency by one

and decreasing said frequency by one, said maximum and minimum allowed values being set

by a user is well known in the art. In particular, Nguyen discloses updating a retransmission

frequency by increasing said frequency by one if said data loss rate is greater than a

maximum allowed value (see col. 3, lines 50-60; increase the retransmission

window/time/frequency in accordance with a congesting traffic or lost packet) and

decreasing said frequency by one if said data loss rate is less than a minimum allowed value

(see col. 3, lines 50-60; decrease the retransmission window/time/frequency in accordance

with a congesting traffic or lost packet), said maximum and minimum allowed values being

set by a user (see FIG. 3, User 115; see col. 3, lines 5 to col. 4, lines 46).

Therefore, it would have been obvious to one having ordinary skill in the art at the

time the invention was made to updating the retransmission window/time/frequency in

accordance with a congesting traffic or lost packet, as taught by Nguyen in the system of

Minko, so that it would increasing the data throughput and simplifies TCP timer process; see

Nguyen col. 2, line 1-25.

Regarding Claim 15, Neither Minko nor Nguyen explicitly discloses 30 seconds.

Minko teaches acceptable threshold to start recover and end the recover process as shown in

FIG. 3 in order to retransmit the lost packet. Nguyen teaches adjustable time interval in

bits/second, 2 hour, or 20 msec (see col. 3, lines 50-66; see col. 7, lines 15-20, 40-65, see col.

9, lines 4) for time interval for retransmission. Setting time interval to 30 seconds does not

define a patentable distinct invention over that in the combined system of Minko and Nguyen

since both the invention as a whole and the combined system of Minko and Nguyen are

directed to determining time interval required for retransmission lost packet so as to maintain

the voice quality. The degree in which determining time interval value presents no new or

unexpected results, so long as the voice quality is maintained, the voice traffic is processed in

a successful way. Therefore, to have time interval of 30 seconds for retransmission would

have been routine experimentation and optimization in the absence of criticality.

Regarding Claim 16, the combined system Minko and Nguyen discloses wherein

said frequency is updated if said data loss rate is greater than a maximum allowed value and

if said data loss rate is less than a minimum allowed value. Thus, it is clear that the combined

system of Minko and Nguyen does not update said frequency when said data loss rate is

between said maximum allowed value and said minimum allowed value.

Regarding Claim 17, Neither Minko nor Nguyen explicitly discloses 4 and 1. Minko

teaches updating the maximum and minimum of said frequency in FIG. 3 in order to

retransmit the lost packet. Nguyen teaches updating retransmission window/time/frequency

number in accordance with the traffic. Setting frequency to 4 and 1 do not define a patentable

distinct invention over that in the combined system of Minko and Nguyen since both the

invention as a whole and the combined system of Minko and Nguyen are directed to updating

retransmission window/time/frequency number for retransmission lost packet so as to

maintain the voice quality. The degree in which setting frequency of 4 and 1 presents no new

or unexpected results, so long as the voice quality is maintained, the voice traffic is processed

in a successful way. Therefore, to have frequency of 4 and 1 for retransmission would have

been routine experimentation and optimization in the absence of criticality.

Regarding Claim 18, Neither Minko nor Nguyen explicitly discloses 5% and 1%.

Minko teaches said maximum and minimum allowed values are set to 7%, in FIG. 3, see col.

8, lines 20-26; in order to retransmit the lost packet. Nguyen teaches updating retransmission

window/time/frequency number in accordance with the traffic. Setting threshold/allowable

values to 5% and 1% do not define a patentable distinct invention over that in the combined

system of Minko and Nguyen since both the invention as a whole and the combined system

of Minko and Nguyen are directed to having the threshold and retransmission

window/time/frequency number for retransmission lost packet so as to maintain the voice

quality. The degree in which having threshold/allowed value of 5% and 1% presents no new

or unexpected results, so long as the voice quality is maintained, the voice traffic is processed

in a successful way. Therefore, to have the allowed value or threshold of 5% and 1% for

retransmission would have been routine experimentation and optimization in the absence of

criticality.

8.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minko in view of

Nguyen as applied to claim 14 above, and further in view of Fukushima (U.S. 6,587,985).

        Regarding Claim 19, the claim, which has substantially disclosed all the limitations

of the respective claim 4. Therefore, it is subjected to the same rejection.

9.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minko in view of

Nguyen as applied to claim 14 above, and further in view of Hamiti.

        Regarding Claim 20, the claim, which has substantially disclosed all the limitations

of the respective claims 5 and 6. Therefore, it is subjected to the same rejection.

Allowable Subject Matter

10.   Claims 2,3,8,11,12, and 21 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the
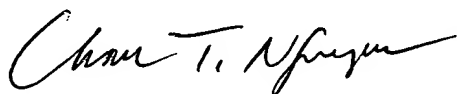
base claim and any intervening claims.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ian N Moore whose telephone number is 571-272-3085. The

examiner can normally be reached on M-F: 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chau T Nguyen can be reached on 571-272-3126. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-5300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM
9/19/05

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600